

Serial No.: 10/701,161

Docket No.: KC-20,043

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A bonded structure comprising:
a first substrate;
a second substrate; and
an adhesive composition bonding the first substrate and the second substrate to one another at an add-on level between about 0.5 and about 25 grams/meter², wherein the bonded structure has a dynamic peel strength between about 40 and about 1000 grams per 25 millimeters, and the adhesive composition comprises:

about 50 to about 99% by weight amorphous poly-alpha-olefin, about 1 to about 50% by weight tackifier, and at least about 80% combined weight of an the amorphous poly-alpha-olefin and a the tackifier, and

zero to about 20% combined weight of one or more additives selected from the group consisting of color pigments, fragrances, fillers, block copolymer compatibilizers, waxes, and oils, and

the amorphous poly-alpha-olefin, tackifier and one or more additives together constitute about 100% by weight of the adhesive composition.

2. (Canceled)

3. (Canceled)

4. (Original) The bonded structure of Claim 1, wherein the adhesive composition consists essentially of the amorphous poly-alpha-olefin, the tackifier, and an antioxidant stabilizer.

5. (Original) The bonded structure of Claim 1, wherein the amorphous poly-alpha-olefin comprises propylene copolymerized with at least one of the group consisting of: butene, ethylene, and hexene.

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6. (Original) The bonded structure of Claim 1, wherein the amorphous poly-alpha-olefin comprises a polypropylene-1-butene amorphous poly-alpha-olefin.

7. (Original) The bonded structure of Claim 1, wherein the tackifier has a molecular weight of about 2000 Daltons or less.

8. (Original) The bonded structure of Claim 1, wherein the tackifier comprises a C5 hydrocarbon tackifier.

9. (Original) The bonded structure of Claim 1, having a compression-tensile peel strength between about 80 and about 400 grams per square millimeter.

10. (Original) The bonded structure of Claim 1, wherein each of the first and second substrates is selected from the group consisting of: nonwoven material, woven material, film, foam, an elastic component, a fastening component, and combinations thereof.

11. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises at least one of the group consisting of cellulosic material, materials containing natural fibers, thermoplastic material, and combinations thereof.

12. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises at least one of the group consisting of a polyester layer, a polyethylene layer, a polypropylene layer, and combinations thereof.

13. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises at least one of the group consisting of a necked-bonded laminate, a stretch-bonded laminate, a spunbond-meltblown-

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spunbond laminate, a spunbond layer, a carded layer, a wet-laid layer, a meltblown layer, a hydroentangled layer and combinations thereof.

14. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises at least one of the group consisting of elastomeric polymer compositions, tackified polymers, olefinic copolymers, polyethylene elastomers, polypropylene elastomers, polyester elastomers, ethylene-propylene-diene terpolymers, styrene-isoprene-styrene, styrene-butadiene-styrene, styrene-ethylene/butylene-styrene, styrene-ethylene/propylene-styrene, polyurethane, polyisoprene, cross-linked polybutadiene, and combinations thereof.

15. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises a low-surface-energy olefin substrate.

16. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises a low-tension elastic material.

17. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises an elastomeric substrate.

18. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises an extensible substrate.

19. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises a non-extensible substrate.

20. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates comprises a liquid-impermeable, water-vapor-transmissible substrate.

21. (Original) The bonded structure of Claim 1, wherein at least one of the first and second substrates has a thickness of about 40 μm or less.

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22. (Original) The bonded structure of Claim 1, wherein the first and second substrates are each part of a single substrate.

23. (Original) The bonded structure of Claim 1, having no burn-through visual defects greater than about 1 millimeter.

24. (Currently Amended) An article comprising:

a first substrate;

a second substrate; and

an adhesive composition bonding the first substrate and the second substrate to one another at an add-on level between about 0.5 and about 25 grams/meter² thereby forming a bonded structure, wherein the bonded structure has an end seal strength between about 40 and about 1000 grams per 25 millimeters, the article is selected from the group consisting of personal care products, health/medical products, and household/industrial products, and the adhesive composition comprises:

about 50 to about 99% by weight amorphous poly-alpha-olefin, about 1 to about 50% by weight tackifier, and at least about 80% combined weight of an the amorphous poly-alpha-olefin and a the tackifier, and

zero to about 20% combined weight of one or more additives selected from the group consisting of color pigments, fragrances, fillers, block copolymer compatibilizers, low softening point additives, waxes, and oils, and

the amorphous poly-alpha-olefin, tackifier and one or more additives together constitute about 100% by weight of the adhesive composition.

25. (Currently Amended) An article comprising:

a film;

a nonwoven web; and

an adhesive composition bonding the film and the nonwoven web to one another at an add-on level between about 2 and about 5 grams/meter² thereby forming a bonded structure, wherein the bonded structure has an end seal strength between about 60 and about 600 grams per 25 millimeters, the article is selected from

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the group consisting of personal care products, health/medical products, and household/industrial products, and the adhesive composition comprises:

about 50 to about 99% by weight amorphous poly-alpha-olefin, about 1 to about 50% by weight C5 hydrocarbon tackifier, and at least about 80% combined weight of an the amorphous poly-alpha-olefin and a the C5 hydrocarbon tackifier, and
zero to about 20% combined weight of one or more additives selected from the group consisting of color pigments, fragrances, fillers, block copolymer compatibilizers, low softening point additives, waxes, and oils, and

the amorphous poly-alpha-olefin, tackifier and one or more additives together constitute about 100% by weight of the adhesive composition.

26-31. (Canceled)

32. (Previously Presented) The bonded structure of Claim 1, wherein the adhesive composition has a Brookfield viscosity of about 1000 to about 1500 centipoise at 190° Celsius.

33. (Previously Presented) The bonded structure of Claim 1, wherein the adhesive composition comprises about 70% to about 95% by weight of the amorphous poly-alpha-olefin.

34. (Previously Presented) The bonded structure of Claim 1, wherein the adhesive composition comprises about 5% to about 30% by weight of the tackifier.

35. (Previously Presented) The bonded structure of Claim 1, wherein the adhesive composition has an add-on level of about 1 to about 15 grams/meter².

36. (Previously Presented) The bonded structure of Claim 1, wherein the adhesive composition has an add-on level of about 2 to about 5 grams/meter².

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37. (Previously Presented) The bonded structure of Claim 1, wherein one of the first and second substrates comprises a stretch-thinned film formed from a polyolefin mixed with a particulate filler.